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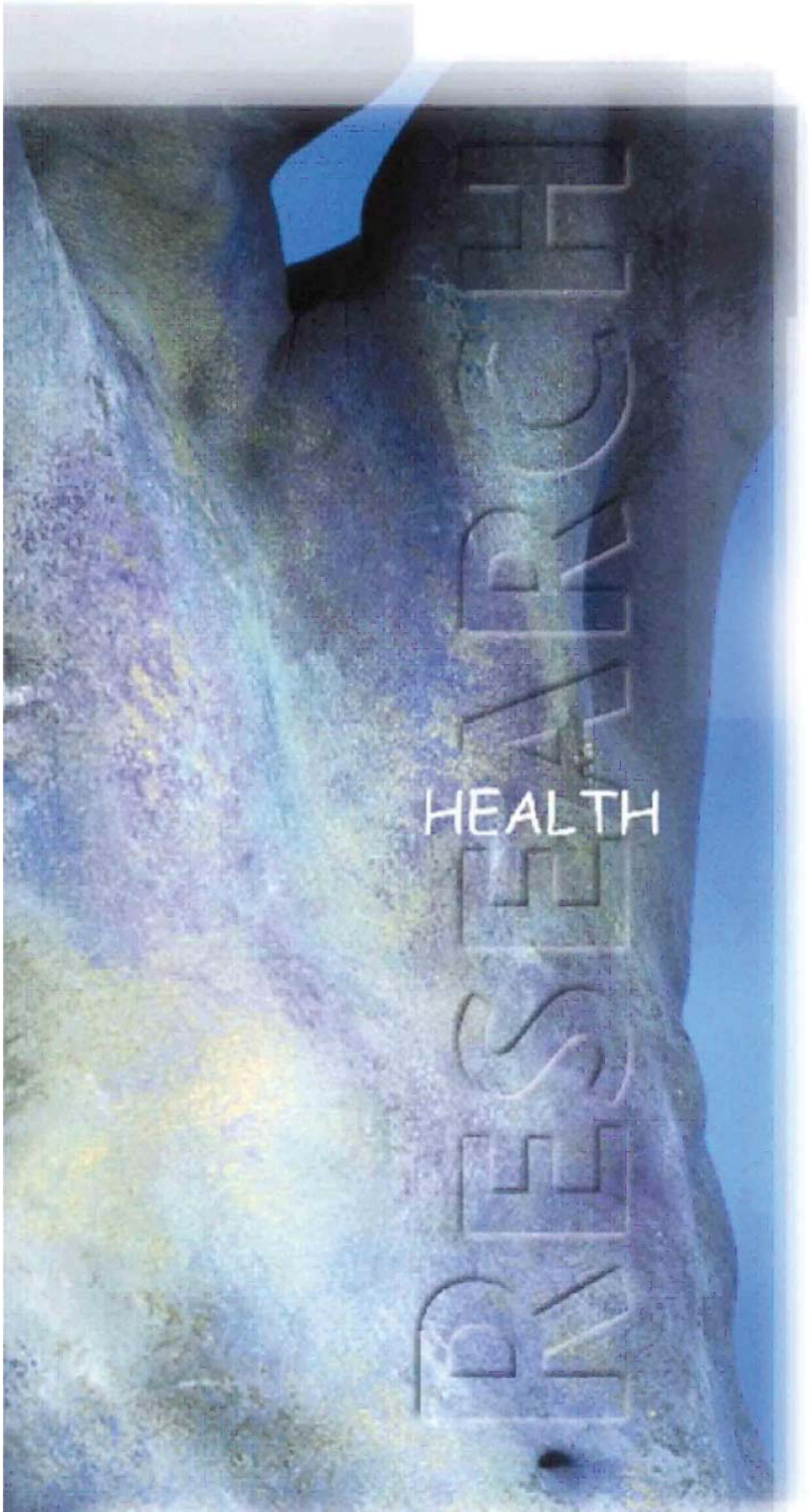

The Mental Health of Children and Adolescents with Learning Disabilities in Britain

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Contents

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Summary

Background

Over 30 years ago in the seminal 'Isle of Wight' studies, Professor Sir Michael Rutter and his colleagues reported that 30% of 10 to 12 year-old children with learning disabilities had a mental health disorder, compared with just 7% of non-learning disabled children. More recent evidence suggests that this may have been an *underestimate* of the actual prevalence of mental health disorders among young people with learning disabilities. Studies undertaken in Australia, Norway, Finland, the Netherlands and South Africa suggest that approximately 40% of children and adolescents with learning disabilities are likely to have a diagnosable mental health problem.

In a previous project we analysed data that had been collected by the Office for National Statistics (ONS) in 1999 in their survey of the mental health of children and adolescents in Great Britain. We found that in this nationally representative sample of just over 10,000 children, 39% of 5-15 year old British children with learning disabilities had a diagnosable mental health problem (compared to 8% among children who did not have learning disabilities).

In 2004 the ONS repeated their survey on a new sample of over 7,000 children. The aims of the present study are, by analysing combined data from the 1999 and 2004 ONS Surveys of the mental health of children and adolescents in Britain, to attempt to answer four questions.

1. What is the prevalence of psychiatric disorders among children and adolescents with learning disabilities in Britain (overall prevalence, prevalence of specific disorders, prevalence of combinations of disorders)?
2. To what extent do learning disabilities represent a risk factor for psychiatric disorders in children and adolescents?
3. To what extent do risk factors for psychiatric disorder (e.g., gender, familial socio-economic position, life events) within the population of children and adolescents with learning disabilities correspond to those within the general child and adolescent population?
4. What support do families supporting a child with learning disabilities and of psychiatric disorders receive?

The Surveys

The Office for National Statistics has undertaken two major surveys of the mental health of British children and adolescents. The 1999 survey collected information on 10,438 children between 5 and 15 years of age. The 2004 survey collected information on 7,977 children between 5 and 16 years of age. Comparison of the results from the 1999 and 2004 surveys has failed to reveal any change in the prevalence or nature of mental health problems between these two points in time. As a result, we

have combined these two surveys to provide a total sample of 18,415 children.
We identified children and adolescents as having learning disabilities if one of the following conditions was met:

1. The child's primary carer reported that the child had 'learning difficulties' AND the child's teacher reported that *either* they had marked difficulty in all three areas of scholastic attainment (reading, maths, spelling) *or* their Developmental Quotient (DQ) fell two or more standard deviations below the average DQ.
2. The child's primary carer did not report that the child had 'learning difficulties' BUT the child's teacher reported that they had marked difficulty in all three areas of scholastic attainment (reading, maths, spelling) *and* their DQ fell two or more standard deviations below the average DQ.
3. No information was available from the child's teacher BUT the child's primary carer reported that the child had 'learning difficulties' *and* that they had been concerned about the child's speech development in the first three years.

This approach identified 641 children (3.5%) as having learning disabilities.

The Children and Their Families

There were some important differences between the children with and without learning disabilities. In particular, children with learning disabilities were significantly more likely to:

- be boys
- have poor general health
- have been exposed to a greater variety of adverse life events (e.g., abuse, serious accidents, bereavement, domestic violence)
- be brought up by a single parent (nearly always a single mother)
- live in poverty
- live in a poorly functioning family (e.g., one that is characterised by disharmony)
- have a mother who is in poorer health
- have a mother who has mental health needs
- live in a family with lower educational attainments and higher rates of unemployment
- have fewer friends.

These differences are consistent with previous research that has documented the considerable social disadvantage faced by children with learning disabilities and their families. They are particularly important for our analyses because *all* of these have also been identified as risk factors for mental health problems among children and adolescents generally. What this means is that we would *expect* children with learning disabilities to have more mental health problems, not as an inevitable consequence of their learning disabilities, but simply because of their increased chances

of being exposed to poverty, social exclusion and more challenging family environments.

The Children's Mental Health

Over one in three children and adolescents with a learning disability in Britain (36%) have a diagnosable psychiatric disorder. Children and adolescents with learning disabilities are over six times more likely to have a diagnosable psychiatric disorder than their peers who do not have learning disabilities.

The increased risk of having a mental health problem cuts across all types of psychiatric disorders. Children with learning disabilities are:

- 33 times more likely to have an autistic spectrum disorder
- 8 times more likely to have ADHD
- 6 times more likely to have a conduct disorder
- 4 times more likely to have an emotional disorder
- 1.7 times more likely to have a depressive disorder

They are also significantly more likely to have multiple disorders.

These patterns are mirrored in the information collected from older children (aged 11+) themselves. Children with learning disabilities are:

- 5 times more likely to say that they have significant emotional and behavioural difficulties and difficulties in getting on with their peers
- 4 times more likely to say that their emotional and behavioural difficulties have a significant impact on their lives
- 3 times more likely to say that they have significant behavioural difficulties or social difficulties
- 2 times more likely to say that they have significant emotional difficulties or difficulties with attention and over activity

Children with learning disabilities are at much greater risk of having mental health problems than children who do not have learning disabilities. But they are also poorer, live in more challenging family circumstances and have fewer friends; all of which are known to also be associated with an increased risk of mental health problems. When we take these factors into account the risk apparently associated with learning disabilities is reduced by at least two-thirds.

This is consistent with the view that the increased rates of mental health problems among children and adolescents with learning disabilities in Britain is more to do with their increased exposure to poverty and social exclusion than being something inherent in having learning disabilities.

We also examined whether risk factors for mental health problems are similar for children with and without learning disabilities. For both emotional and conduct disorders the same risk factors operated in the same direction for children with and without learning disabilities. Boys (with and without learning disabilities) were more likely to have conduct

disorders. Girls (with and without learning disabilities) were more likely to have emotional disorders. Older children and children facing adversity were more likely to have either emotional or conduct disorders.

The Social Situation of Children with Learning Disabilities and Mental Health Problems

Children in Britain who have learning disabilities and a mental health problem are likely to face considerable social adversity. Nearly two thirds of children with emotional disorders are living in poverty. Six out of ten have been exposed to two or more different types of adverse life events. Over half are supported by a mother who is likely to have mental health needs herself. This information helps define some key aspects of the social context within which services and support need to be delivered.

Services and Support

- Less than one in three carers (28%) reported that they turn to family and friends for advice about their child's emotions, behaviour or concentration difficulties.
- Three out of four carers (75%) reported that they had received support from services. Just over half (56%) reported that they had received *helpful* support from services. The main sources of helpful formal support were:
    - Teachers (reported by 42% of carers)
    - Special education personnel (19%)
    - CAMHS (17%)
    - GPs/primary care (16%)
    - Paediatricians (15%)
- There was no evidence to suggest that children with learning disabilities had less access to formal or informal sources of support than children who did not have learning disabilities. Indeed, where differences did occur children with learning disabilities had more access to support than children who did not have learning disabilities.
- There was some tentative evidence of inequalities in access to helpful forms of formal support. In general, hard pressed families had less access to forms of formal support that they found helpful.

Conclusions

Over one in three children and adolescents with a learning disability in Britain have a diagnosable psychiatric disorder. Just under half of the children's families reported that they had received no helpful support from services. There was some tentative evidence that hard pressed families had less access to helpful forms of formal support.

Addressing the mental health needs of children with learning disabilities is important for three inter-related reasons.

- First, mental health problems can have a major negative impact on the well-being, social inclusion and life opportunities of children.
- Second, mental health problems in children with learning disabilities have a negative impact on the well-being of their families (and especially their mothers).
- Third, mental health problems in children are likely to lead to out-of-home placements, especially the use of high-cost residential educational placements.

Addressing the mental health needs of children with learning disabilities will also require that we address the social circumstances under which the children and their families are living. Nearly two thirds of children with emotional disorders are living in poverty. Six out of ten have been exposed to two or more different types of adverse life events. Over half are supported by a mother who is likely to have mental health needs herself.

These are issues that agencies will need to take into account when designing supports and services. They are also issues that are known to cause mental health problems in young people. Responding to these challenges is likely to require more than developing better services. It also requires us to address issues related to poverty and social exclusion that permeate the lives of many of these children.

Background

Over 30 years ago in the seminal 'Isle of Wight' studies, Professor Sir Michael Rutter and his colleagues reported that 30% of 10 to 12 year-old children with learning disabilities had a mental health disorder, compared with just 7% of non-learning disabled children.[1] It is only much more recently, however, that serious attention has begun to be paid to the task of identifying in detail and responding to the mental health needs of children and adolescents with learning disabilities.[2-8]

More recent evidence suggests that Rutter and colleagues may have *underestimated* the prevalence of mental health disorders among young people with learning disabilities. Studies undertaken in Australia,[9-11] Norway,[12] Finland[13], the Netherlands[14-16] and South Africa[17] suggest that approximately 40% of children and adolescents with learning disabilities are likely to have a diagnosable mental health problem.

In a previous project we further analysed data that had been collected in an Office for National Statistics (ONS) survey of the mental health of children and adolescents in Great Britain.[18] We found that in this nationally representative sample of over 10,000 British children, 39% of 5-15 year old children with learning disabilities had a diagnosable mental health problem (compared to 8% among children who did not have learning disabilities).[19] Similar rates of mental health problems among young people with learning disabilities have been reported in small studies undertaken in specific areas of England[20 21] and Scotland.[22]

The high rates of mental health problems among young people with learning disabilities must be of concern for three inter-related reasons.

- First, mental health problems can have a major negative impact on the well-being, social inclusion and life opportunities of children.[23]
- Second, mental health problems in children with learning disabilities have a negative impact on the well-being of their families (and especially their mothers).[24-27]
- Third, mental health problems in children are likely to lead to out-of-home placements, especially the use of high-cost residential educational placements.

Previous research has also identified a number of factors that are associated with an increased risk of mental health problems among children and young people with learning disabilities.[2 7 8] These have included:

- child characteristics such as age, gender, severity of disability, social impairment, communication skills, child health and physical disability and specific syndromes associated with learning disabilities;
- family characteristics including poverty and neighbourhood deprivation, family composition and functioning, the use of punitive child management strategies, exposure to negative life events and psychological distress experienced by family carers.

There appear to be three main reasons for the high rates of mental health problems experienced by young people with learning disabilities.[8] First, the intellectual impairment associated with learning disabilities reduces the child's capacity for finding creative and adaptive solutions to life's challenges. This is consistent with evidence that, among children more generally, there is an association between lower intelligence and increased risk for mental health problems. [28 29]

Second, children and adolescents with learning disabilities are at increased risk of exposure to poverty and social disadvantage; social conditions that have also been linked to an increased risk of mental health problems.[30 31] They also experience higher rates of stressful life events, such as abuse, than children without learning disability.[31 32] It has recently been estimated that 20-33% of the increased risk of psychopathology among children with intellectual disabilities can be attributed to the impact of social disadvantage, partially mediated by increased risk of exposure to a range of adverse life events.[33 34]

Third, some particular causes of intellectual disability lend vulnerability to particular types of mental health problems. These vulnerabilities, along with characteristics of cognitive performance, are termed "behavioural phenotypes".[2 8 35 36]

In 2004 the ONS repeated their survey on a new sample of over 7,000 children. The aims of the present study are, by analysing combined data from the 1999 and 2004 ONS Surveys of the mental health of children and adolescents in Britain,[18 37] to attempt to answer four questions.

1. What is the prevalence of psychiatric disorders among children and adolescents with learning disabilities in Britain (overall prevalence, prevalence of specific disorders, prevalence of combinations of disorders)?
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4. What support do families supporting a child with learning disabilities and of psychiatric disorders receive?

The ONS Surveys

Over the last decade the Office for National Statistics has undertaken two major surveys of the mental health of British children and adolescents. The 1999 survey collected information on 10,438 children between 5 and 15 years of age (83% of the target sample of 12,529 eligible children).[18] The 2004 survey collected information on 7,977 children between 5 and 16 years of age (76% of the target sample of 10,496 eligible children).[37] Both samples were stratified by age and sex within postcode sectors in England, Scotland and Wales. Comparison of the results from the 1999 and 2004 surveys has failed to reveal any meaningful changes in the prevalence of psychiatric disorders among the total sample of young people between these two points in time.[37] As a result, analyses for this report have been undertaken on the combined sample of 18,415 children (80% overall response rate).[37]

The two surveys used identical procedures for the general collection of information, the identification of psychiatric disorders and the collection of information on child and family demographics and functioning. Information was collected by face-to-face interview with the child's primary carer (in most cases the child's mother) and, wherever possible for children aged 11 years or over, with the child themselves. Information was also collected by postal questionnaire from the child's teacher if consent to do so was provided by the child's primary carer.

Measures

The presence of psychiatric disorders among the children and adolescents was identified through the use of the Development and Well Being Assessment (DAWBA).[38] This consists of:

- two structured interviews (one undertaken with the child's primary carer, and the other undertaken, for children aged 11 years or more, with the child themselves);
- a questionnaire used with the child's teacher;
- and a computer-assisted diagnostic rating system that provides diagnoses against DSM-IV and ICD-10.

The DAWBA has been shown to: discriminate well between samples of children drawn from population-based child benefit registers and children drawn from those attending child psychiatric clinics; have good convergent validity with the Strengths and Difficulties Questionnaire;[39] predict contact with health services and prognosis; possess acceptable levels of agreement with diagnoses derived from case note review.[38]

In addition, information was also collected from the primary carer, the child's teacher and for children aged 11 years or more, the child themselves using the Strengths and Difficulties Questionnaire (SDQ).[39] This is a brief 25 item questionnaire that, while not providing psychiatric diagnoses, provides a useful measure of reported severity of emotional and behavioural needs and the impact these have on the child's life.

Information was also collected in both 1999 and 2004 on indicators of family socio-economic position (occupation, income, education), life events, parental mental health (using the GHQ-12),[40] family functioning (using the General Functioning Scale of the MacMaster Family Activity Device),[41] use of services, child academic attainment and some aspects of child friendships. Additional information was collected in 2004 on child medication, absence from school, child social aptitude and the child's social network and supports.

Identifying Children with Learning Disabilities

Two sets of questions relating to learning disabilities were contained in both the 1999 and 2004 surveys.

Parental Report of 'Learning Difficulties' & Expressed Concern over Speech Development in the First Three Years of Life

The primary informant was asked the following questions.

> 'Here is another list of health problems or conditions which some children or young people may have. Please can you tell me whether NAME CHILD has...
>
> - Hyperactivity
> - Behavioural problems
> - Emotional problems
> - **Learning difficulties**
> - Dyslexia
> - Cerebral palsy
> - Migraine or severe headaches
> - The Chronic Fatigue Syndrome or M.E
> - Eye/Sight problems
> - Speech/or language problems
> - Hearing problems
> - None of these'

The informant was allowed to check as many options as required.

> 'In his/her first 3 years of life, was there anything that seriously worried you or anyone else about the way his/her speech developed? (1) Yes (2) No'

Overall, 7.9% of informants reported that the child had 'learning difficulties',14.3% reported concern about their speech development in the first three years of life and 3.3% reported that the child had 'learning difficulties' and also reported concern about their speech development in the first three years of life.

This information is available for all children.

Teacher Report of Scholastic Attainment & Mental Age

When primary carer consent was given, the child's teacher was sent a postal questionnaire including the following two items.

> 'A1. Compared with an average child of the same age, how does he or she fare in the following areas:(a) Reading? (b) Mathematics? (c) Spelling? (Options: above average, average, some difficulty, marked difficulty)'
>
> 'A2.Although "mental age" is a crude measure that cannot take account of a child being better in some areas than others, it would be helpful if you could answer the following question: In terms of overall intellectual and scholastic ability, roughly what age level is he or she at?'

Overall, 4.1% of children were reported to have marked difficulty in reading and maths and spelling.

Teacher estimates of developmental age were transformed into developmental quotients (DQ) by dividing them by chronological age. Overall, 3.2% of children fell two or more standard deviations below the average DQ.

Unsurprisingly, DQ correlated reasonably highly with overall estimated school attainment ($r = 0.68$, $p<0.001$).

This information is available for 72% of children. For 3% of children, the child's primary carer did not give consent to contact the child's teacher and 1% of children were not attending school. For an additional 24% of children, the child's teachers failed to provide the requested information.

Unfortunately, the subset of children for whom this information is available was not representative of the full sample. Specifically, children for whom we have no information from teachers are significantly:

- Less physically healthy
- Poorer
- Are more likely to have experienced an adverse life event
- More likely to be supported in less healthily functioning families
- More likely to be supported by a lone parent

The Approach Taken

We identified children and adolescents as having learning disabilities if one of the following conditions were met:

1. The child's primary carer reported that the child had 'learning difficulties' AND the child's teacher reported that *either* they had marked difficulty in all three areas of scholastic attainment (reading, maths, spelling) *or* their DQ fell two or more standard deviations below the average DQ.
2. The child's primary carer did not report that the child had 'learning difficulties' BUT the child's teacher reported that they had marked difficulty in all three areas of scholastic attainment (reading, maths, spelling) *and* their DQ fell two or more standard deviations below the average DQ.
3. No information was available from the child's teacher BUT the child's primary carer reported that the child had 'learning difficulties' *and* that they had been concerned about the child's speech development in the first three years.

This approach identifies 641 children (3.5%) as having learning disabilities.

We believe that this approach makes best use of the data by

- cross validating carer and teacher report when both are available
- taking into account the risk that carers (due to concerns about stigma or unfamiliarity with the term) may not correctly identify a child as having learning disabilities
- using the full (unbiased) set of data

Children with Learning Disabilities and Their Families

Our approach identified 641 children as having learning disabilities (3.5%) and 17,774 children as not having learning disabilities (96.5%). The overall prevalence rate for learning disabilities is consistent with those reported in previous population-based studies of children.[42-44]

Some of the characteristics of the children and their families are described in Tables 1 and 2.

Summary

There were some important differences between the children with and without learning disabilities. In particular, children with learning disabilities were significantly more likely to:

- be boys
- have poor general health
- have been exposed to a greater variety of adverse life events (e.g., abuse, serious accidents, bereavement, domestic violence)
- be brought up by a single parent (nearly always a single mother)
- live in poverty
- live in a poorly functioning family (e.g., one that is characterised by disharmony)
- have a mother who is in poorer health
- have a mother who has mental health needs
- live in a family with lower educational attainments and higher rates of unemployment
- have fewer friends.

These differences are consistent with previous research that has documented the considerable social disadvantage faced by children with learning disabilities and their families.[43-51] They are particularly important for our analyses because *all* of these have been identified as risk factors for mental health problems among children and adolescents generally.[37 52-54] What this means is that we would *expect* children with learning disabilities to have more mental health problems, not as an inevitable consequence of their learning disabilities, but simply because of their increased chances of being exposed to poverty, social exclusion and more challenging family environments.[33 46 47]

Table 1: Characteristics of children with and without learning disabilities		
	Children	
	with learning disabilities	without learning disabilities
The Children		
Age (average)	10.1	10.2
Gender (% male)***	66%	50%
Ethnicity*		
White	90%	89%
Black	4%	3%
Indian	1%	2%
Pakistani/Bangladeshi	3%	3%
Other	1%	3%
Child's general health (% 'fair' or 'bad')***	20%	6%
Number of types of negative life events child has been exposed to***		
0	27%	44%
1	36%	32%
2+	37%	24%
Friendships		
Find it 'harder than average' to make friends***	33%	9%
Find it 'harder than average' to keep friends***	25%	5%
No friends***	14%	1%
Only one friend***	13%	4%
Does 'a lot' of things together with friend***	56%	76%
If worried cannot talk to friends***	43%	20%
'Many' or 'all' of child's friends get into trouble***	9%	2%
Their Families		
Supported by single parent***	30%	23%
Living in income poverty[a]***	47%	30%
'Unhealthy' family functioning***	27%	18%
Informant has no educational qualification***	38%	20%
Nobody in household is in employment***	30%	14%
Average number of siblings	1.4	1.3
Mother's general health is less than 'good'***	20%	6%
Mother is likely to have an emotional disorder[b]***	33%	24%

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

[a] Living in a household with less than 60% of the national median equivalised household income

[b] Mother scores above the cut-off for likely non-psychotic mental health problems on the GHQ-12

Table 2: Exposure to adverse life events among children with and without learning disabilities		
	Children	
	with learning disabilities	without learning disabilities
Number of different types of negative life events child has been exposed to***		
0	27%	44%
1	36%	32%
2+	37%	24%
Specific life events		
Primary carer separated from partner***	40%	31%
Child hospitalised***	31%	17%
Major financial crisis in family	17%	14%
Primary carer or partner in trouble with police***	11%	6%
Close friend of child has died***	10%	6%
Child in serious accident	7%	5%
Bereavement in immediate family*	5%	3%
Child has witnessed severe domestic violence**	4%	2%
Child has broken off steady relationship with girl/boyfriend	2%	3%
Physically abused***	2%	<1%
Sexually abused*	1%	<1%
Has witnessed relative being attacked	1%	<1%

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

The Prevalence[c] and Impact of Mental Health Problems in Children & Adolescents with and without Learning Disabilities

In the 1999 and 2004 surveys the presence of psychiatric disorders (defined in accordance with the World Health Organisation's ICD-10 classification)[55] was identified through the use of the Development and Well Being Assessment (DAWBA).[38] This consists of: two structured interviews (one undertaken with the child's primary carer, and the other undertaken, for children aged 11 years or more, with the child themselves); a questionnaire used with the child's teacher; and a computer-assisted diagnostic rating system that provides diagnoses.

This gives information, through independent assessment and evaluation, on whether that particular child at that particular point in time has a *diagnosable* psychiatric disorder (and if so the nature of that disorder). It does not tell us whether the child had been actually diagnosed as having that particular disorder.

The prevalence of mental health problems among children and adolescents with and without learning disabilities is shown in Table 3.

In addition, information was also collected from the primary carer, the child's teacher and for children aged 11 years or more, the child themselves using the Strengths and Difficulties Questionnaire (SDQ).[39] This is a brief 25 item questionnaire that, while not providing psychiatric diagnoses, provides a useful measure of reported severity of emotional and behavioural needs and the impact these have on the child's life in the following five areas:

- behavioural problems (conduct disorders)
- emotional disorders
- hyperactivity
- problems with peers
- pro-social behaviour

Responses in each of these five areas (and overall impact) are classified as normal, possible risk and high risk.[d] The severity of the child's emotional and behavioural needs as reported *by the child themselves*, their primary carer and their teacher are shown in Table 4. Approximately two-thirds of children with learning disabilities aged 11 or older completed the SDQ (compared with 90% of children without learning disabilities aged 11 or older).

[c] Prevalence refers to the percentage of people who at a particular point in time have a particular condition or disorder.
[d] The actual terminology used is 'normal', 'borderline' and 'abnormal'.

Table 3: The prevalence of mental health problems among children and adolescents with and without learning disabilities			
	Children		Odds Ratio[e]
	with learning disabilities	without learning disabilities	
Any psychiatric disorder	36%	8%	6.5***
Any emotional disorder[f]	12%	4%	3.6***
Any anxiety disorder	11%	3%	3.9***
Separation anxiety	3%	<1%	4.9***
Specific phobia	2%	<1%	2.4**
Social phobia	<1%	<1%	3.3**
Panic disorder	<1%	<1%	1.0
Agoraphobia	<1%	<1%	1.7
Post-traumatic stress disorder	<1%	<1%	3.1
Obsessive-compulsive disorder	<1%	<1%	0.7
Generalised anxiety disorder	2%	<1%	2.5**
Other anxiety disorder	4%	<1%	4.8***
Any depressive disorder	1%	<1%	1.7
Depressive episode	<1%	<1%	1.5
Other depressive episode	<1%	<1%	2.1
Hyperkinesis (ADHD)	8%	1%	8.4***
Any conduct disorder	21%	4%	5.7***
Oppositional defiant disorder	11%	2%	5.3***
Unsocialised conduct disorder	2%	<1%	4.9***
Socialised conduct disorder	2%	1%	2.1**
Other conduct disorder	5%	<1%	10.5***
Autistic spectrum disorder	8%	<1%	33.4***
Tic disorder	<1%	<1%	5.2**
Eating disorder	<1%	<1%	1.3
Multiple disorders			
Emotional disorder + conduct disorder	4%	<1%	6.7***
Conduct disorder + ADHD	3%	<1%	5.9***
Emotional disorder + ADHD	<1%	<1%	10.5***
Emotional disorder + conduct disorder + ADHD	2%	<1%	11.2***
Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).			

[e] Odds Ratios are often used in epidemiological research to give an indication of the level of risk for (in this case) psychiatric disorder given that the person (in this case) has learning disabilities. An Odds Ratio of 1 means there is no risk. An Odds Ratio of more than 1 means that there is more risk (e.g., an Odds Ratio of 2 indicates that the risk of having that particular disorder are twice as great if you have learning disabilities). An Odds Ratio of less than 1 means that there is less risk (e.g., an Odds Ratio of 0.5 indicates that the risk of having that particular disorder is cut by half if you have learning disabilities)

[f] Emotional disorders include mood disorders (e.g., depression) and all anxiety disorders.

Table 4: The severity of emotional and behavioural needs among children and adolescents with and without learning disabilities

	Children with learning disabilities			Children without learning disabilities		
	Normal	Possible risk	High risk	Normal	Possible risk	High risk
The child's perspective (aged 11+)						
Behaviour***	57%	21%	22%	81%	10%	9%
Emotions***	79%	12%	9%	90%	5%	5%
Hyperactivity***	59%	17%	25%	79%	9%	12%
Peer problems***	72%	22%	7%	91%	7%	2%
Social**	84%	11%	5%	91%	7%	2%
Total difficulties***	59%	22%	19%	85%	11%	5%
Impact***	64%	17%	19%	87%	7%	6%
The parent's perspective (all children)						
Behaviour***	52%	16%	32%	78%	10%	12%
Emotions***	56%	13%	31%	82%	7%	11%
Hyperactivity***	35%	14%	51%	81%	7%	13%
Peer problems***	45%	17%	39%	81%	9%	10%
Social***	85%	6%	9%	96%	2%	2%
Total difficulties***	43%	16%	41%	85%	7%	8%
Impact***	34%	14%	50%	85%	7%	9%
The teacher's perspective (all children)						
Behaviour***	58%	18%	24%	82%	9%	9%
Emotions***	73%	11%	16%	92%	4%	5%
Hyperactivity***	79%	19%	2%	92%	6%	3%
Peer problems***	28%	36%	36%	19%	56%	26%
Social***	51%	19%	30%	77%	12%	11%
Total difficulties***	32%	39%	29%	60%	30%	10%
Impact***	26%	19%	55%	82%	9%	9%

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

Summary

Over one in three children and adolescents with a learning disability in Britain (36%) have a diagnosable psychiatric disorder. Children and adolescents with learning disabilities are over six times more likely to have a diagnosable psychiatric disorder than their peers who do not have learning disabilities.

The increased risk of having a mental health problem cuts across all types of psychiatric disorders. Children with learning disabilities are:

- 33 times more likely to have an autistic spectrum disorder
- 8 times more likely to have ADHD
- 6 times more likely to have a conduct disorder
- 4 times more likely to have an emotional disorder
- 1.7 times more likely to have a depressive disorder

They are also significantly more likely to have multiple disorders.

These patterns are mirrored in the information collected from older children (aged 11+) themselves. Children with learning disabilities are:

- 5 times more likely to say that they have significant emotional and behavioural difficulties and difficulties in getting on with their peers
- 4 times more likely to say that their emotional and behavioural difficulties have a significant impact on their lives
- 3 times more likely to say that they have significant behavioural difficulties or social difficulties
- 2 times more likely to say that they have significant emotional difficulties or difficulties with attention and over activity

Risk Factors for Mental Health Problems

To What Extent is Learning Disability Itself a Risk Factor?

As we described earlier, there were some important differences between the children with and without learning disabilities. In particular, children with learning disabilities were significantly more likely to be exposed to poverty and social exclusion. As a result, we would *expect* children with learning disabilities to have more mental health problems, not because they have learning disabilities, but simply because of their more disadvantaged social circumstances.[33 46 47]

In a previous study based on data from the 1999 survey we estimated that 20-33% of the increased risk of mental health problems among children with learning disabilities could be attributed to the impact of social disadvantage.[33] In this section we have repeated these analyses on the combined data from the 1999 and 2004 surveys.

To do this we used a complex statistical procedure (stepwise binary logistic regression) which involved three stages.

1. We estimated the risk for mental health problems associated with learning disabilities after taking account of any differences between children with and without learning disabilities that may be due to differences in age, gender and ethnicity.
2. We estimated the risk for mental health problems associated with learning disabilities after taking account of the above factors and any differences between children with and without learning disabilities that may be due to differences in family income.
3. We estimated the risk for mental health problems associated with learning disabilities after taking account of the above factors and any differences between children with and without learning disabilities that may be due to differences in family composition (lone parent status), informant educational attainment, household employment status, family functioning, exposure to negative life events, maternal health and maternal well-being.

By comparing changes in the estimated risk for mental health problems associated with learning disabilities across these three stages, we can estimate what proportion of the observable risk may be due to differences between children with and without learning disabilities related to their social circumstances.

We undertook these analyses to estimate risk for any psychiatric disorder, any emotional disorder and any conduct disorder. The results are summarised in Figure 1.

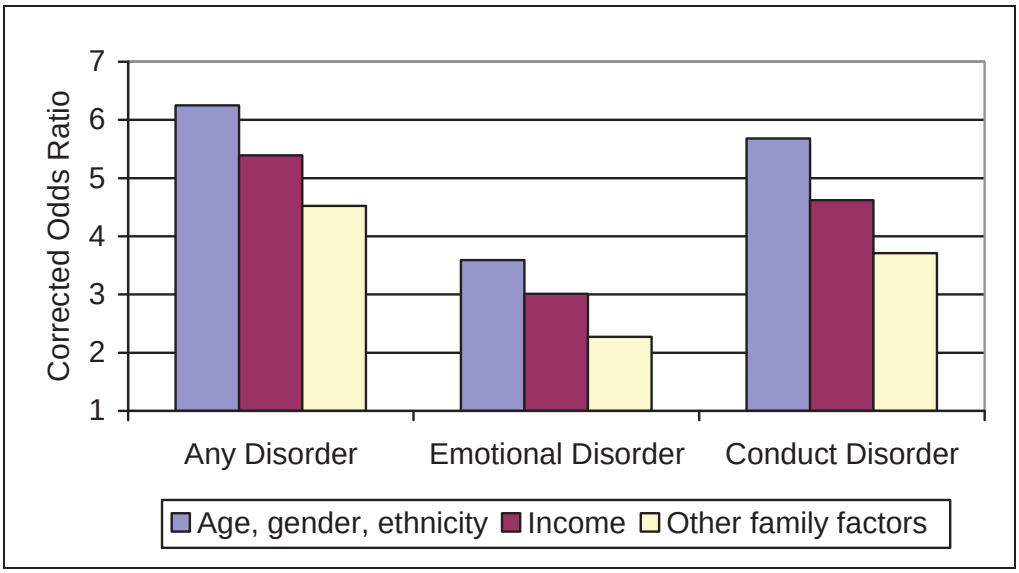

Figure 1: Risk associated with learning disability when controlled for child age, gender and ethnicity, family income and other family circumstances

- In all three analyses just taking account of differences in family income between children with and without learning disabilities significantly reduced the risk of psychiatric disorders apparently associated with learning disabilities; by 16% for having any disorder, by 22% for emotional disorders and by 23% for conduct disorders.
- Again, in all three analyses also taking account of other family circumstances significantly further reduced the risk of psychiatric disorders apparently associated with learning disabilities; by 17% for having any disorder, by 29% for emotional disorders and by 29% for conduct disorders.
- Overall, taking into account these social factors 'explains away':
    - 33% of the risk apparently associated with learning disabilities for having any psychiatric disorder
    - 51% of the risk apparently associated with learning disabilities for having an emotional disorder
    - 42% of the risk apparently associated with learning disabilities for having a conduct disorder.

In these analyses we could not take account of the differences between children with and without learning disabilities regarding their friendships (as these questions were only asked in the 2004 survey) or the occupational status (social class) of their families (as these questions were asked in different ways in the 1999 and 2004 surveys). Repeating these analyses just on the 2004 data and including indicators of child friendships and family occupational status gave even more striking results (Figure 2).

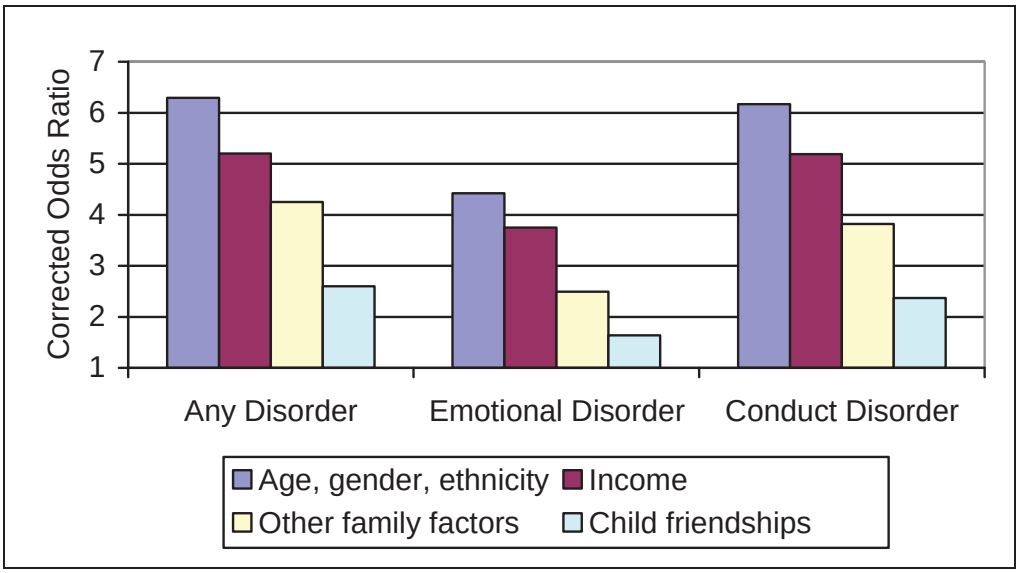

Figure 2: Risk associated with learning disability when controlled for child age, gender and ethnicity, family income, other family circumstances and child friendships

- As above, just taking account of differences in family income between children with and without learning disabilities significantly reduced the risk of psychiatric disorders apparently associated with learning disabilities; by 21% for having any disorder, by 20% for emotional disorders and by 19% for conduct disorders.
- Again, also taking account of other family circumstances significantly further reduced the risk of psychiatric disorders apparently associated with learning disabilities; by 18% for having any disorder, by 36% for emotional disorders and by 24% for conduct disorders.
- In addition, also taking account of differences between children with and without learning disabilities in their friendships significantly further reduced the risk of psychiatric disorders apparently associated with learning disabilities; by 30% for having any disorder, by 25% for emotional disorders and by 29% for conduct disorders.
- Overall these factors accounted for:
    - 69% of the risk apparently associated with learning disabilities for having any psychiatric disorder
    - 81% of the risk apparently associated with learning disabilities for having an emotional disorder
    - 74% of the risk apparently associated with learning disabilities for having a conduct disorder.
- Indeed, when these factors were taken into account there was no statistically significant association between having learning disabilities and having an emotional disorder.

Risk Factors among Children with and without Learning Disabilities

The analyses undertaken by the original research team reported significant associations between the probability of children and adolescents having a mental health disorder and child age and gender and a range of indicators of socio-economic position and family functioning.[37] In this section we will examine whether risk factors for mental health problems are similar for children with and without learning disabilities. We do this separately for emotional and conduct disorders.

The value of this is twofold. First, it provides information on which children with learning disabilities are at greatest risk of having a mental health problem. Second, it can provide circumstantial evidence of whether the same processes underlie the mental health problems of children with and without learning disabilities.[4]

Tables 5 and 6 show the percentage of children with different characteristics or who are living in different circumstances who have an emotional disorder (Table 5) or a conduct disorder (Table 6). For both emotional and conduct disorders the same risk factors operated in the same direction for children with and without learning disabilities.

- Boys (with and without learning disabilities) were more likely to have conduct disorders.
- Girls (with and without learning disabilities) were more likely to have emotional disorders.
- Older children, children in poor health and children facing adversity were more likely to have both emotional and conduct disorders.

There were differences between the two groups with regard to the statistical significance of these associations. By and large this reflected differences in the statistical 'power' of the analyses as there were many more children without learning disabilities than with learning disabilities. There were, however, a few instances in which the magnitude (rather than statistical significance) of the association differed between groups.

- There was a much stronger association between child health and emotional disorder for children without learning disabilities (odds ratio=5.0) than for children with learning disabilities (odds ratio=1.5).
- There was also a much stronger association between maternal health and emotional disorder for children without learning disabilities (odds ratio=5.3) than for children with learning disabilities (odds ratio=1.4).
- There was a moderately stronger association between adversity and conduct disorder for children without learning disabilities than for children with learning disabilities.

It is unclear whether these differences reflect differences in susceptibility or differences in base rates of the events in question.

Emotional Disorders

Table 5: Percentage of Children with and without Learning Disabilities with Diagnosable Emotional Disorder

	Children with learning disabilities		Children without learning disabilities	
	% of children with emotional disorders	Risk (Odds Ratio)	% of children with emotional disorders	Risk (Odds Ratio)
Gender				
Boys	11%		3%	
Girls	15%	1.5	4%	1.3**
Age				
5-10	9%		3%	
11-16	16%	1.8*	5%	1.9***
Child's general health				
Fair/poor	16%	1.5	14%	5.0***
Good	11%		3%	
Lone parent family				
Yes	19%	2.4***	6%	2.2***
No	9%		3%	
Income poverty				
Yes	15%	2.2**	6%	2.2***
No	7%		3%	
Number of types of negative life events				
0	8%		2%	
1	8%	1.0	3%	1.7***
2+	20%	3.1***	8%	4.2***
Family functioning				
Healthy	9%		3%	
Unhealthy	20%	2.5**	7%	2.2***
Primary carer education				
GCSE C+	9%		3%	
Not	15%	1.9*	5%	1.8***
Employment status of household				
At least one person in employment	10%		3%	
Nobody in employment	19%	2.3**	8%	2.5***
Maternal mental health				
At risk (above cut-off on GHQ-12)	20%	2.5**	8%	3.6***
Not at risk	9%		2%	
Maternal physical health				
Less than 'good'	17%	1.4	14%	5.3***
'Good' or 'very good'	12%		3%	

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

Conduct Disorders

Table 6: Percentage of Children with and without Learning Disabilities with Diagnosable Conduct Disorder

	Children with learning disabilities		Children without learning disabilities	
	% of children with conduct disorders	Risk (Odds Ratio)	% of children with conduct disorders	Risk (Odds Ratio)
Gender				
Boys	25%	2.3***	6%	2.1***
Girls	12%		3%	
Age				
5-10	19%		4%	
11-16	23%	1.3	5%	1.4***
Child's general health				
Fair/poor	29%	1.8**	11%	3.0***
Good	18%		4%	
Lone parent family				
Yes	31%	2.3***	8%	2.4***
No	16%		3%	
Income poverty				
Yes	25%	1.7*	8%	2.9***
No	17%		3%	
Number of types of negative life events				
0	14%		2%	
1	19%	1.5	4%	1.8***
2+	29%	2.6***	9%	4.5***
Family functioning				
Healthy	19%		3%	
Unhealthy	28%	1.7*	11%	3.8***
Primary carer education				
GCSE C+	15%		3%	
Not	27%	2.2***	7%	2.4***
Employment status of household				
At least one person in employment	17%		3%	
Nobody in employment	29%	2.0**	10%	3.2***
Maternal mental health				
At risk (above cut-off on GHQ-12)	29%	1.9**	9%	3.5***
Not at risk	17%		2%	
Maternal physical health				
Less than 'good'	29%	1.8*	11%	3.0***
'Good' or 'very good'	19%		4%	

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

Summary

Children with learning disabilities are at much greater risk of having mental health problems than children who do not have learning disabilities. But they are also poorer, live in less adventitious family circumstances and have fewer friends; all of which are known to also be associated with an increased risk of mental health problems. When we take these factors into account the risk apparently associated with learning disabilities is reduced by at least two-thirds.

This is consistent with the view that the increased rates of mental health problems among children and adolescents in Britain is more to do with their increased exposure to poverty and social exclusion than being something inherent in having learning disabilities.

We examined whether risk factors for mental health problems are similar for children with and without learning disabilities. The value of this is twofold. First, it provides information on which children with learning disabilities are at greatest risk of having a mental health problem. Second, it can provide circumstantial evidence of whether the same processes underlie the mental health problems of children with and without learning disabilities.

For both emotional and conduct disorders the same risk factors operated in the same direction for children with and without learning disabilities. Boys (with and without learning disabilities) were more likely to have conduct disorders. Girls (with and without learning disabilities) were more likely to have emotional disorders. Older children and children facing adversity were more likely to have either emotional or conduct disorders.

The Social Circumstances of Children with Learning Disabilities who have Mental Health Problems

In previous sections we have seen that children living in less adventitious circumstances are more likely to have learning disabilities and are also more likely to have mental health problems. In this section we describe the social situation of children in Britain who have learning disabilities *and* mental health problems. This information helps define some key aspects of the social context within which services and support need to be delivered.

Of children in Britain who have learning disabilities and a mental health problem:

- 53% are living in poverty (compared with 30% of all British children)
- 48% have been exposed to two or more adverse life events (compared with 24% of all British children)
- 45% are supported by a primary carer with no educational qualifications (compared with 20% of all British children)
- 44% are supported by a mother who is likely to have mental health needs herself (compared with 24% of all British children)
- 38% are living in families in which no adult is in paid employment (compared with 15% of all British children)
- 38% are supported by a single parent (compared with 23% of all British children)
- 34% are living in 'unhealthily' functioning families (compared with 18% of all British children)
- 25% are supported by a mother who is in less than good physical health (compared with 7% of all British children)
- 92% are facing at least one of the above adversities (compared with 65% of all British children)
- 38% are facing four or more of the above adversities (compared with 14% of all British children)

Of children in Britain who have learning disabilities and an emotional disorder:

- 65% are living in poverty
- 61% have been exposed to two or more adverse life events
- 51% are supported by a primary carer with no educational qualifications
- 52% are supported by a mother who is likely to have mental health needs herself
- 46% are living in families in which no adult is in paid employment
- 47% are supported by a single parent
- 45% are living in 'unhealthily' functioning families
- 25% are supported by a mother who is in less than good physical health

- 95% are facing at least one of the above adversities
- 49% are facing four or more of the above adversities

Of children in Britain who have learning disabilities and a conduct disorder:

- 58% are living in poverty
- 51% have been exposed to two or more adverse life events
- 54% are supported by a primary carer with no educational qualifications
- 45% are supported by a mother who is likely to have mental health needs herself
- 41% are living in families in which no adult is in paid employment
- 44% are supported by a single parent
- 36% are living in 'unhealthily' functioning families
- 27% are supported by a mother who is in less than good physical health
- 96% are facing at least one of the above adversities
- 46% are facing four or more of the above adversities

Summary

Children in Britain who have learning disabilities and a mental health problem are likely to face considerable social adversity. Nearly two thirds of children with emotional disorders are living in poverty. Six out of ten have been exposed to two or more different types of adverse life events. Over half are supported by a mother who is likely to have mental health needs herself. Well over half of children with conduct disorders are living in poverty. Half have been exposed to two or more different types of adverse life events. Nearly half are supported by a mother who is likely to have mental health needs herself. This information helps define some key aspects of the social context within which services and support need to be delivered.

Services and Support

In this section we describe the supports and services accessed by the children who have mental health problems in 2004 or their families (these questions were not included in the 1999 survey).

Table 7: Services and support to children with and without learning disabilities who have a mental health problem

	Children	
	with learning disabilities	without learning disabilities
Informal Support		
From family or friends	28%	32%
Self-help group**	9%	2%
Internet	7%	6%
Helpline	4%	4%
Support from Services		
Teacher*	63%	50%
Special education personnel*	31%	20%
GP/Primary Care	29%	30%
CAMHS	25%	22%
Paediatrician***	20%	8%
Social work**	20%	10%
Adult mental health services	5%	2%
Support from at least one of above services	75%	67%
Support from Services that was Reported to be 'Helpful' or 'Very Helpful'		
Teacher*	42%	30%
Special education personnel	19%	13%
GP/Primary Care	16%	17%
CAMHS	17%	12%
Paediatrician**	15%	5%
Social work	7%	3%
Adult mental health services	4%	1%
Helpful support from at least one of above services	56%	46%
Use of Psychoactive medication		
Any	8%	10%
Stimulants	7%	7%
Anti-depressants	1%	2%
Anti-psychotics	0%	1%

Note: * indicates that the difference between children with and without learning disabilities is 'statistically significant' (i.e., is unlikely to occur by chance alone). The greater the number of *, the less likely this magnitude of difference is due to occur by chance: * less than 1 in 20 chance ($p<0.05$); ** less than 1 in 100 chance ($p<0.01$); *** less than 1 in 1,000 chance ($p<0.001$).

The most commonly reported barriers to accessing specialist support among families supporting a child with learning disabilities and a mental health problem were:

- Difficulty getting a referral (reported by 16% of families)
- Not knowing what was available (15%)
- Services being reluctant/unwilling to see the child (6%)

- Did not think the service would be able to help (5%)
- Worried child may be taken away (4%)
- Bad experience with services in the past (4%)
- Not liking what was offered (4%)
- Concerns about privacy or confidentiality (3%)
- Too long a wait (2%)
- Worried about what people may think (1%)

We also investigated whether, just among children with learning disabilities who had a mental health problem, there were any systematic differences in who did or did not receive support and the perceived helpfulness of support. As these analyses are restricted to children with learning disabilities who had a mental health problem in 2004 the numbers involved are relatively small. As a result, if we rely solely on traditional approaches to defining statistical significance we run the risk of overlooking associations that are of potential social significance. To address this we have reported below associations that are either statistically significant (associations that are only likely to occur less than 1 in 20 times by chance alone) or potentially socially significant (associations that double the odds of accessing a particular type of support). The results are presented in Table 8.

Summary

- Less than one in three carers (28%) reported that they turn to family and friends for advice about their child's emotions, behaviour or concentration difficulties.
- Three out of four carers (75%) reported that they had received support from services. Just over half (56%) reported that they had received *helpful* support from services. The main sources of helpful formal support were:
    - Teachers (reported by 42% of carers)
    - Special education personnel (19%)
    - CAMHS (17%)
    - GPs/primary care (16%)
    - Paediatricians (15%)
- There was no evidence to suggest that children with learning disabilities had less access to formal or informal sources of support than children who did not have learning disabilities. Indeed, where differences did occur children with learning disabilities had more access to support than children who did not have learning disabilities.
- There was some tentative evidence of inequalities in access to helpful forms of formal support. In generally, hard pressed families had less access to helpful forms of formal support.

Table 8: Factors associated with access to and helpfulness of services and support to children with and without learning disabilities who have a mental health problem		
	Less likely for …..	Odds Ratio
Informal Support		
From family or friends	Mothers with no mental health needs	3.7*
Self-help group	Older children	2.5
	Lone parent families	2.5
	Primary carer with no qualifications	5.7
	Mothers with no mental health needs	2.6
Internet	Poor families	7.4*
	Lone parent families	4.4
	'Unhealthily' functioning families	2.5
	Primary carer with no qualifications	10.7*
	Families with nobody in employment	2.6
	Mothers with no mental health needs	8.2
Support from Services		
Teacher	Poor families	2.9
	Primary carer with no qualifications	2.7
Special education personnel	Older children	2.6*
GP/Primary Care	Older children	2.7*
CAMHS	Girls	2.0
Paediatrician	No associations	
Social work	No associations	
Support from 1+ service	Poor families	2.8
	Primary carer with no qualifications	2.4
	Families with nobody in employment	2.7
Helpful Support from Services		
Teacher	Primary carer with no qualifications	3.1
	Families with nobody in employment	2.2
	Mothers with no mental health needs	2.1
Special education personnel	Older children	2.4
	Mothers in better general health	2.1
GP/Primary Care		
CAMHS	Older children	2.1
	Girls	2.3
	'Unhealthily' functioning families	4.5
	Mothers with no mental health needs	2.5
	Mothers in better general health	2.9
Paediatrician	Poor families	2.2
	Mothers in better general health	2.6
Social work	'Unhealthily' functioning families	3.1
	Families with nobody in employment	2.6
Helpful support from 1+ service	Families with nobody in employment	2.3
	Mothers with mental health needs	2.1
Note: * indicates that the association is 'statistically significant' (i.e., less than 1 in 20 chance of occurring by chance alone).		

Conclusions

Over one in three children and adolescents with a learning disability in Britain have a diagnosable psychiatric disorder. Just under half of the children's families reported that they had received no helpful support from services. There was some tentative evidence that hard pressed families had less access to helpful forms of formal support.

Addressing the mental health needs of children with learning disabilities is important for three inter-related reasons.

- First, mental health problems can have a major negative impact on the well-being, social inclusion and life opportunities of children.
- Second, mental health problems in children with learning disabilities have a negative impact on the well-being of their families (and especially their mothers).
- Third, mental health problems in children are likely to lead to out-of-home placements, especially the use of high-cost residential educational placements.

Addressing the mental health needs of children with learning disabilities will also require that we address the social circumstances under which the children and their families are living. Nearly two thirds of children with emotional disorders are living in poverty. Six out of ten have been exposed to two or more different types of adverse life events. Over half are supported by a mother who is likely to have mental health needs herself.

These are issues that agencies will need to take into account when designing supports and services. They are also issues that are known to cause mental health problems in young people. Responding to these challenges is likely to require more than developing better services. It also requires us to address issues related to poverty and social exclusion that permeate the lives of many of these children.

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